

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
24 March 2005 (24.03.2005)

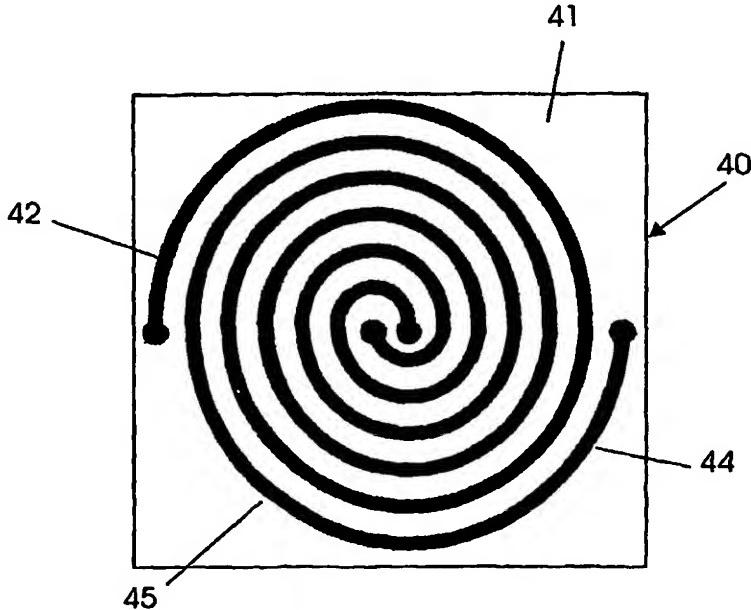
PCT

(10) International Publication Number  
**WO 2005/027156 A3**

- (51) International Patent Classification<sup>7</sup>: **H01F 27/28**,  
17/00, 19/04
- (21) International Application Number:  
**PCT/GB2004/050011**
- (22) International Filing Date:  
16 September 2004 (16.09.2004)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:  
0321658.7 16 September 2003 (16.09.2003) GB
- (71) Applicant (for all designated States except US): **SOUTH BANK UNIVERSITY ENTERPRISES LTD. [GB/GB]**; 103 Borough Road, London, Greater London SE1 0AA (GB).
- (72) Inventors; and  
(75) Inventors/Applicants (for US only): **ALFORD, Neil**,
- (54) International Patent Classification<sup>7</sup>: **H01F 27/28**,  
17/00, 19/04
- (74) Agent: **COHEN, Alan, Nicol**; 2 Grove Place, Tatsfield, Westerham, Kent TN16 2BB (GB).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH,

[Continued on next page]

(54) Title: DSL MODEM AND TRANSFORMER



WO 2005/027156 A3

(57) Abstract: A digital subscriber line (DSL) modem (12, 14) comprising a line interface transformer (22) having a primary circuit for coupling to a transmission line and a secondary circuit for outputting a signal transmitted over said transmission line, each circuit being formed of a continuous electrically conductive material and in which the primary circuit and the secondary circuit are substantially parallel and are in substantially the same plane.



GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

**Published:**

— *with international search report*

(88) Date of publication of the international search report: 12 May 2005

**Declaration under Rule 4.17:**

— *of inventorship (Rule 4.17(iv)) for US only*

*For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*